
Consumer Research: Food Guide Pyramid for Young Children

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Developed specifically as a guide for feeding young children, the Food Guide Pyramid for Young Children adapts recommendations of the original Food Guide Pyramid and provides messages, based on the food guide, that are helpful to parents and caregivers in improving the nutritional status of 2- to 6-year-olds. A qualitative consumer research study was conducted to identify needs of the target audience (parents and caregivers of 2- to 6-year-old children), to explore, with this audience, messages based on the food guide, and to evaluate prototype educational materials based on the food guide-based messages directed at behavior change. Parent- and caregiver-participants recommended emphasizing the message to “eat a variety of foods” as a theme for nutrition education materials that are designed to improve young children’s diets. They also suggested that a “child-friendly” graphic of the Food Guide Pyramid would help young children remember the Pyramid. USDA produced a booklet presenting nutrition guidance messages and a “child-friendly” poster of the Food Guide Pyramid.

The Food Guide Pyramid is USDA’s primary nutrition education tool designed to help healthy Americans select a diet that is consistent with the Dietary Guidelines. The Food Guide Pyramid illustrates patterns of food selection that provide adequate amounts of food energy, protein, vitamins, minerals, and dietary fiber for good health but are moderate in fats, added sugars, and sodium. Adaptation and translation of dietary guidance into dietary practice are important components of any effort to help improve diets, including those of young children.

In Phase I of the project to develop a Food Guide Pyramid for Young Children, the Center for Nutrition Policy and

Promotion (CNPP) developed the technical nutrition basis for adapting the Food Guide Pyramid (6,7). CNPP staff determined that the nutrients in the foods children consume, if eaten in amounts recommended by the original Food Guide Pyramid, would meet children’s nutrient needs. Because Pyramid food groups and recommended numbers of servings resulted in a nutritionally adequate diet for young children, the Pyramid graphic could be adapted for young children. Also during Phase I, eight message concepts emerged from the review of literature (5), discussions were held with nutrition educators, and comparisons were made of actual food group and subgroup consumption with the recommendations of the Food Guide Pyramid, as adapted for young children

(6). The concepts were explored and further developed during Phase II.

In support of USDA's nutrition education efforts to translate dietary guidance into consumer behaviors, CNPP conducted a qualitative consumer research study in Phase II. Qualitative research is particularly useful for gaining insights and a better understanding of the target audience. Qualitative research consists of open-ended, structured discussions or interviews with individuals or small groups of individuals—the purpose of which is to gather a greater depth of information than can be obtained by using quantitative techniques (3).

CNPP conducted qualitative research because consideration of the target audience, including its wants and needs, is the foundation of this research project to advance dietary guidance for children in a way that motivates behavior change in both adults and children. Recent research on the effectiveness of nutrition education programs, including those with preschool children, found that programs using educational methods directed at behavior change as a goal were more likely to be successful than programs that focused on information dissemination (4).

Methods

The focus group study was conducted in two rounds. The objectives for the first round were to assess the nutrition information that parents and caregivers of 2- to 6-year-old children needed, to identify the key concerns for nutrition education, to assess familiarity with the Food Guide Pyramid, and to explore nutrition guidance messages (based on the food guide) for young children. The objectives for the second round were to determine whether the prototypes

effectively communicated nutrition guidance to the target audience of parents and caregivers of 2- to 6-year-olds. The discussions for the second round were designed to assess consumer reaction to the prototype materials (including their reactions to design and layout, readability, and applicability of the message concepts) and to identify any confusing or misleading information.

Samples

For the first round, six focus groups, three with parents and three with caregivers, were conducted in January 1998. Parents were screened based on their ethnicity, household income, and educational level. Parents were also screened to ensure that they had at least one child 2- to 6-years-old and had not participated in a focus group within the last 6 months. Caregivers were included if they cared for 2- to 6-year-olds. (They could provide in-home care as well as care in larger facilities.) Twelve people were recruited for each group so that at least eight would attend. Some geographical dispersion was obtained by conducting one focus group with parents and a separate focus group with caregivers in each of three cities—Baltimore (Maryland), Richmond (Virginia), and Chicago (Illinois). Fifty-two adults participated in the first round of the study.

In July 1998 the second round began. One focus group with parents and another focus group with caregivers were held in each of three cities—Baltimore (Maryland), Richmond (Virginia), and Chicago (Illinois)—for a total of six groups. The screening criteria used for the first round were also used for this round. In addition, parents in Richmond and Chicago with 5- to 6-year-olds were screened to have their children participate in a mini-focus group. Twenty-

seven parents, 25 caregivers, and 8 children participated in the second round; none had participated in the first round.

Procedures

For the first round of focus group studies, the moderator, with over 10 years of experience working with focus groups, led each group through the 2-hour sessions. Each focus group began with introductions and an icebreaker, followed by discussions based on the objectives. The discussions identified goals, benefits, and barriers to healthful eating, participants' knowledge of nutrition, and their feeding practices. The session then focused on the nutrition messages of the Food Guide Pyramid and how they apply to young children. Discussions ended on the eight messages regarding nutrition guidance and how to communicate them to young children.

All sessions were audio-taped and transcribed to obtain participants' exact responses to questions. Once transcribed, comments were color-coded and grouped according to content; this allowed key discussion themes to be uncovered. The moderator and his staff recorded and reported participants' verbal and non-verbal emotional expressions.

After the first round, CNPP developed the text of the materials to be used with the participants in the second round. The prototypes were designed and produced through USDA's Office of Communications Design Center. To emphasize the variety theme, CNPP used the slogan *1-2-3 Variety* in all three prototypes. The prototype for the parents, a full-color, 12-page booklet, *A Parents' Guide to Using the Food Guide Pyramid*, contained an adapted graphic of the Food Guide Pyramid. Also included was general nutrition

information that gives a better understanding of

1. healthful eating,
2. tips on increasing the variety of foods eaten,
3. meal planning and time-saving tips,
4. guidance on specific issues such as serving sizes and fat intake recommendations related to young children, and
5. age-appropriate kitchen activities.

The brochure *Caregivers: Using the Food Guide Pyramid for Young Children* was based on the assumption that most caregivers have access to nutrition education materials and have some knowledge of the Food Guide Pyramid. The brochure contained the new graphic and an explanation of changes made from the original Pyramid graphic, including text to make clear that the adapted Food Guide Pyramid does not replace the original Pyramid. Also included were a list of foods to encourage variety in the diet and a step-by-step food activity designed to involve young children. The third prototype, a poster of the adapted Food Guide Pyramid graphic, showed foods (drawn in a realistic style and shown in single serving sizes when possible) commonly eaten by young children. The names of the food groups were simplified, and the number of servings was represented by a single number rather than a range of numbers. The symbols for fat and sugars were eliminated, and food pictures were used in the tip.

One week before the sessions for the second round, parent-recruits were sent the text of the information that was prepared for parents; caregiver-recruits were sent the text of the information that was prepared for the caregiver's

brochure and the parents' booklet.

The recruits were instructed to read the material before attending their sessions; thus, focus group time would be used for discussion rather than be used, to a great extent, for reading.

The same moderator who led the first round of focus groups led the 2-hour second-round focus groups. At each session, following introductions and an icebreaker, participants were shown the prototype poster, *The Food Guide Pyramid for Young Children*, after which it was discussed and put aside. Each parent then received the information booklet *A Parents' Guide to Using the Food Guide Pyramid for Young Children*, and the moderator led a discussion designed to evaluate the booklet. Caregivers were given the brochure *Caregivers: Using the Food Guide Pyramid for Young Children*. Following a discussion to evaluate the brochure, each caregiver was given the parent booklet. Throughout these sessions, the participants were asked to read and respond to several sections of text and to the visual presentation of the materials.

The mini-focus group sessions with the children began with parents and children in the same room. Following a brief introduction and explanation of the process, the children were taken to a separate room where the moderator showed them a prototype poster of the Food Guide Pyramid. The moderator led the children in a discussion of the poster and the concept of healthful eating. The children were not asked about the other materials intended for adults that required an eighth-grade reading level. As with the first round, all sessions in the second round were audio-taped, transcribed, color-coded, and grouped according to content.

The idea of using the graphic of the Food Guide Pyramid as a teaching tool, as it turns out, was a new concept for some parents.

Results

The First Round

The 27 parent-participants in the first round of the focus group studies had at least one child 2 to 6 years olds; 78 percent were female. Forty-nine percent were African American; 37 percent, White; 11 percent, Hispanic; and 3 percent, Asian. Almost 80 percent had attended or graduated from college; about 40 percent had a household income between \$20,000 and \$40,000. Of the 25 participants who were caregivers, 24 percent worked in in-home child-care facilities.

As a qualitative research method, focus groups are not projectable to any population; however, they provide insight into how the consumer views the world and what the consumer thinks (8). Findings from this focus group research can be presented under four key discussion themes: Current Feelings Toward Feeding Young Children, Current Behavior and Knowledge, Food Guide Pyramid, and Nutrition and Dietary Behavior. All quotes from participants are taken from the unpublished reports prepared for USDA (1).

Current Feelings Toward Feeding Young Children.

Identifying the key concerns of parents and caregivers for nutrition education and exploring benefits and barriers to an improved dietary pattern in young children resulted in a key theme.

“One of the most important things to teach them at an early age is to set good standards and give them a good foundation as they grow.” (Caregiver)

“There are a variety of things we try to accomplish through healthy eating . . . socialization, nutrition, emotional stability, which are related to food.” (Caregiver)

“It’s important that children learn good nutrition habits, so as they grow older, they will eat right instead of eating at one fast-food place one day and another fast-food place the next day.” (Parent)

“If you teach them now, they are more apt to continue doing it rather than to introduce them to healthy foods after they have eaten years of junk food. It is easier to do it now.” (Parent)

Table 1 shows the benefits and barriers in the descending order in which they were mentioned by parents and caregivers. Results showed that these parents and caregivers think alike when discussing the benefits of healthful eating. They were asked: “What are the benefits of preparing healthy meals for younger children?” Most answered, “good health.” The second benefit mentioned more often by both groups was, “developing good eating habits at an early age.” Caregivers also pointed out that children are better behaved, have longer attention spans, and have energy to do things when they are fed well.

When it comes to feeding young children, parents most often mentioned the following barriers to healthful eating: the lack of time to plan and prepare meals, inexperience in dealing with picky eaters, and the negative influences of others.

“Time is needed in three different places. You have to plan the meal, purchase it, and prepare it.”

“I need information on what to do with an extremely picky eater who won’t eat anything.”

“If they are with somebody else, you don’t have any control over the foods they eat.”

Caregivers seemed at ease when discussing nutrition and how they feed young children. Caregivers rarely mention having difficulty with “picky eaters.” Instead, they said most children were willing to try a new food if they saw their friends eating the food. Several caregivers said parents were the biggest barrier to improving children’s diets.

“It’s just a lack of knowing what is nutritious for a child. They [parents] think that a bag of chips and a soda are nutritious.”

“Parents don’t know what their children are supposed to eat as a balanced meal. I think it’s important that we send the information home to the parents so that they [children] can eat healthy and be consistent with what we do.”

Current Behavior and Knowledge.

All groups were quite knowledgeable about nutrition, based on the level of discussion of most parents and caregivers. When asked to rate themselves on a scale of 1 to 10 on how well they believe they provide their children with healthful and nutritious meals, parents rated themselves “average” to “above average”; caregivers rated themselves “above average” to “excellent.” During further discussion, in spite of their knowledge of nutrition and ratings, many parents expressed feeling ill-equipped to feed their young children a healthful diet. They knew the “why’s” but not the “how’s.”

Table 1. Benefits and barriers to improving children's diets

Benefits to improving diets	
Parents say:	Caregivers say:
Good health	Healthy children—less sickness
Good eating habits	Good eating habits
Minds work better	Energy
Better attitude	Happy children—happy parents
Food is a key part of a loving home	Emotional, cognitive, social growth
	Food is a key part of a nurturing environment
Barriers to improving diets	
Parents say:	Caregivers say:
Lack of knowledge	Parents
Lack of time to plan meals	Wasting food/wasting money
Lack of time to prepare meals	Food allergies
Negative influences of others	
Picky eaters	
Cost of food/wasting food	

“Not enough of the information focuses on children. What we’ve been doing is taking adult information and applying it to children.” (Parent)

“I think of nutrition and feeding my daughter as a challenge every day.” (Parent)

Most caregivers seemed both knowledgeable and comfortable discussing the “do’s” and “don’t’s” of nutrition as each concept related to young children; caregivers were very comfortable with the “how’s.”

“The goals of Head Start are pretty clear that nutrition is an integral part of the program.”

During the parents’ discussions, first-time parents of very young children were most concerned about serving

sizes and whether their children were eating enough. Other parents said they had learned to deal with how much food to give children by offering them small portions and letting the children ask for more. Most parents said they did not insist on having children clean their plates. A few examples:

“They say you shouldn’t overwhelm them by offering too much.” (Parent)

“I think you know your children. All three of my kids get different portions because I know my son will eat more, and one twin girl will eat more than the other.” (Parent)

“When they’re hungry, they will eat. If we could convince parents of that, our jobs would be a lot easier.” (Caregiver)

Food Guide Pyramid. To assess familiarity with the original Food Guide Pyramid, the moderator showed all groups the 1992 poster of the Food Guide Pyramid. Most parents said they are familiar with the graphic: they see it on food packages. Some parents also said that their young children are also familiar with it.

“My son brought the Pyramid to my attention. He told me, ‘Daddy, the bigger the slot is, the more food you’re supposed to have.’ He came to me at 3 years old and told me this.”

Most of the parents were able to discuss the Food Guide Pyramid and to speak about the foods they prepare or do not prepare in each of the food groups. Most were able to identify foods in each of the groups; a few were surprised that eggs and butter were not in the dairy group. Many parents said they see the

Food Guide Pyramid as a useful guide in planning meals.

“The Pyramid is a guide for eating habits. You don’t necessarily have to follow it to the letter, but it gives you an idea of what type of food to serve and how often you should have it.”

Most parents understood the concept of eating more foods from the base of the Pyramid and less foods from the tip. They also understood variety to mean eating different foods from all five main food groups. In the discussion on variety, many parents said they have no trouble getting their children to eat fruits, because fruits are sweet; however, getting them to eat vegetables can be a problem. The idea of using the graphic of the Food Guide Pyramid as a teaching tool, as it turns out, was a new concept for some parents.

“I don’t think I’ve ever thought about teaching my kids about nutrition with [our] sitting down with a picture and everything. I always thought they would learn from what we were eating because we eat fruits and we eat more breads.”

Most caregivers, on the other hand, said they often use the graphic, and other nutrition education materials based on the Food Guide Pyramid, with children. They also said their children are familiar with the Pyramid because the poster is hanging in classrooms, and the children see it every day.

“The Food Guide Pyramid is around so much that even 2-year-olds have some sort of connection to it.”

Many of the caregivers in the focus groups participate in federally sponsored food programs and prepare and offer food

according to particular guidelines. The caregivers also receive from these programs nutrition education ideas and activities to use with their children. A few of the in-home child-care providers were not familiar with the Food Guide Pyramid and did not have formal nutrition education activities beyond those they created. (One in-home care provider sketched the Pyramid graphic to take home.) Caregivers affiliated with programs indicated that they have a lot of information but said they could use a listing of the wide variety of foods available and more ideas related to hands-on food activities for young children.

“You need something that a teacher can work [with] in the classroom, an activity for the children. The best thing would be as a small group activity. You don’t want something that you expect 40 kids to sit through, because 40 preschoolers aren’t going to do that.”

Parents and caregivers liked the idea of the Food Guide Pyramid being used with young children, but most suggested that a graphic for young children should be “child-friendly”—so the young children can remember it as they learn.

“Kids are pretty much guided by what they see, not so much by what they hear. Things that are pleasing to the eyesight they would probably pay more attention to.” (Parent)

“If you could change the picture to meet a lot of needs, . . . I think it could be child-friendly and parent-friendly. This [original Pyramid] to me is grown-up friendly.” (Caregiver)

Some specific suggestions were also made to liven up the poster and to make

it quickly identifiable as a child’s food guide.

“I think it would help us to help them to eat food from the food groups if you made it more attractive to a child. It would give us an aid to help them. We could have a poster with little characters on it holding whatever.” (Parent)

“Put some children on it.” (Caregiver)

“Make the child a part of the whole Pyramid.” (Caregiver)

“Put more stuff in there and more variety . . . Put the food in the form that the child is used to seeing it.” (Caregiver)

Nutrition and Dietary Information.

Reactions to the eight educational message concepts based on the food guide show how well the messages communicate nutrition guidance (table 2).

Message 1: “Increase variety and quality of vegetables eaten.” Many parents reported having difficulty getting their children to eat any vegetables; others were happy if their children ate the same vegetable repeatedly. Some parents said their family had no variety in its choices of fruits and vegetables. Several parents thought a list of foods showing the varieties available would be useful. Thus they would then have an idea of a wider choice of foods to offer their family.

Message 2: “Offer a variety of healthful foods, and encourage children to try new foods.” Parents and caregivers were reluctant to try new foods because of the waste factor. Many parents did not offer certain foods because they themselves did not like the foods. Some parents said they would try a new food,

Table 2. Reactions of focus groups to key messages based on the Food Guide

Messages	Reactions
1. Increase variety and quantity of vegetables eaten	<p><i>"I'd like to have a food list. I had one when I was pregnant . . . it was helpful."</i> (Parent)</p> <p><i>"There are some vegetables you like. It's hard to break out and have variety."</i> (Parent)</p>
2. Offer a variety of healthful foods, and encourage children to try new foods	<p><i>"It's very difficult to find foods that all children will eat. Some of the most nutritious foods end up getting thrown in the garbage, and that is very frustrating."</i> (Caregiver)</p> <p><i>"I always think of the same things, like macaroni and cheese or whatever I usually give them. I don't think I ever diversify."</i> (Parent)</p> <p><i>"If they won't eat it, what's the point."</i> (Parent)</p>
3. Increase the proportion of whole-grain and mixed-grain products	<p><i>"Once in a while [I offer these products to children]."</i> <i>"I tried bagels. What is a whole-wheat cereal? I'm sure we've eaten some."</i> (Parent)</p> <p><i>"We are close to a bread store. Often we go on field trips there. The children like the different kinds of breads."</i> (Caregiver)</p> <p><i>"You always think kids like white bread and grown-ups like dark bread. Not necessarily. Our kids eat dark bread."</i> (Caregiver)</p>
4. Emphasize greater use of whole fruits rather than juices	<p><i>"Children who drink juice eat less food."</i> (Parent)</p> <p><i>"If they get too much juice then they won't take in the food. That's the big problem. We see a lot of little kids whose parents haven't started feeding them; they just let them drink."</i> (Caregiver)</p>
5. Parents and caregivers serve as role models for healthful eating	<p><i>"I'm not crazy about carrots, but I will cook them and eat them."</i> (Parent)</p> <p><i>"I never tell my kids, 'Oh, I don't like that'."</i> (Parent)</p> <p><i>"In my center, everybody is required to sit down and eat with the children. That's one way the children learn. It's an opportunity for a teacher to teach them about nutrition."</i> (Caregiver)</p>
6. Be aware that young children need smaller serving size than adults [need]	<p><i>"I've been doing it all wrong. I give all of us the same amount of food. My youngest never finished anything. My husband tells me I give her too much."</i> (Parent)</p>
7. Be aware that children's appetites can vary day to day and do not overreact to food jags and "picky eaters"	<p><i>"I think that every child has the potential of being picky . . . a kid is a kid."</i> (Caregiver)</p> <p><i>"You have to encourage picky eaters. You sit down with them."</i> (Caregiver)</p> <p><i>"My child actually eats better away from home. She will eat things in her preschool that she will not eat at home because the other children around her are eating them, too."</i> (Parent)</p>
8. Encourage parents to participate in physical activity with children	<p><i>"Oh boy, it's very evident that I'm not getting enough exercise. It's mainly because of our work schedules. I know it's important too, but it's hard to find time to do it a lot of times."</i> (Parent)</p> <p><i>"My young child is very active. My older child is a couch potato."</i> (Parent)</p>

Parents and caregivers liked the idea of the Food Guide Pyramid being used with young children, but most suggested that a graphic for young children should be "child-friendly". . . .

but if it were not well received, they would not offer it again for about 6 months.

Message 3: The amount of time spent on this message—"Increase the proportion of whole-grain and mixed-grain products"—was brief in all focus groups consisting of parents. Many of the parents said they eat whole-grain products themselves but do not offer them to their children. Caregivers, on the other hand, talked quite awhile about the different types of grain products they offer and how the children enjoy them.

Message 4: Regarding the need to "Emphasize greater use of whole fruits rather than juices," several parents said they let their children drink juice because it is easier than cutting up fruit. Many caregivers and some parents realize that drinking too much juice could cause eating problems.

Message 5: "Parents and caregivers serve as role models for healthful eating." A few parents did not think their eating habits had much to do with their children's habits, but most said they tried to eat healthfully so their children would do the same. Most of the caregivers understood the importance of sitting and eating with the children and the importance of offering foods for a healthful diet.

Message 6: "Be aware that young children need smaller serving sizes than adults need." Several parents said they offer small amounts of food, but others offered children the same amount, regardless of their ages.

Message 7: "Be aware that children's appetites can vary day to day and do not overreact to food jags and 'picky eaters'." Parents mentioned dealing with a "picky eater" more often than did caregivers. The caregivers believed that having all the children eat together helped to avoid eating problems.

Message 8: "Encourage parents to participate in physical activity with children" was the last educational message based on the food guide. Most parents believed that their 2- to 6-year-olds were active enough "on their own" and that parental involvement was more important with older children whose activity levels decrease when the school year begins.

These focus group discussions provided insights into what parents and caregivers want and need to improve diets of young children.

- Parents want directions. They want to know what to do; they want to use the Food Guide Pyramid; they want easy-to-read materials.
- Caregivers want activities that involve children, and they want more information on food variety.
- Parents and caregivers want a more "child-friendly" graphic of the Food Guide Pyramid to use with young children.
- Three prototypes are needed: a parent piece, a caregiver piece, and a "child-friendly" graphic of the Food Guide Pyramid, all based on one theme: "Choose a variety of foods for a healthful way of eating." All messages are simple, positive, behavior-oriented, and developmentally appropriate for young children.

The Second Round

In the second round of the focus group study, all 27 parents had at least one child between 2 and 6 years old. Eighty-two percent of the parents were female; 27 percent, African American; 66 percent, White; and 5 percent, Hispanic. Eighty-one percent had attended some college or had graduated from college, and about 30 percent had household incomes between \$20,000 and \$40,000. Twelve percent of the 25 caregivers were employed by in-home child-care facilities that enrolled 2- to 6-year-olds. In addition to the six adult groups, two mini-focus groups with children were conducted. It was decided that children ages 5 and 6 would have sufficient communication skills to participate in the research.

The prototypes were well received. They were considered appealing in terms of colors, illustrations, and their “child-friendly” approach. The nutrition content was described as relevant, easy to read, and easy to understand. Both parents and caregivers considered the materials valuable tools to communicate key nutrition messages to help young children make healthful food choices and develop good eating habits. The participants were open to the idea of a Food Guide Pyramid that has been adapted to meet the needs of young children, and they showed interest in the parents’ booklet and caregivers’ brochure, which supplement the adapted graphic. All quotes from individuals participating in the focus groups are taken from the unpublished reports prepared for USDA (2).

Poster Graphic. Most adults thought the graphic would appeal to young children because of the colors, the realistic “child-friendly” art style, and the variety of recognizable food items. Adults said

the variety concept was communicated by the many foods illustrated, the pyramid shape with the five main food groups, and the number of servings of food groups offered each day.

“I like the variety of pictures of foods . . . You can shop in the store and show the children those foods and the variety of grain foods and vegetables.” (Parent)

“Well, I look at the Pyramid and I feel like it’s more user-friendly. For kids, especially if they are too young to read, the pictures are easy to understand.” (Parent)

“It’s a tool for teaching children about nutrition. That’s an important part of personal teaching, that you have an adult involved.” (Caregiver)

“It’s something a child could look at and actually understand.” (Caregiver)

The tip of the Food Guide Pyramid generated discussion about the meaning of moderation and how adults should deal with young children’s intake of sugars and fat. Many parents wanted to include cakes, cookies, and snack foods as foods for the tip. A few parents wanted no food pictures in the tip because they thought that if their child saw a can of soda in the tip, the child would think it was alright to drink soda instead of milk. Other parents and most caregivers said the tip could be used to teach about “sometimes” or “limited-use” foods. The discussions indicate that more guidance about the tip of the Pyramid and the moderation message should be added to the information booklet.

The poster included information about foods that may be choking hazards for

very young children. Based on input from both parents and caregivers that this information is important but more appropriate within the information booklet, CNPP deleted the information from the poster but left it in the booklet.

The 1-2-3 Variety slogan used on the three prototypes received mixed reviews. About half of the adults tried to figure out “the meaning” while the others thought it was a whimsical phrase to remind children to eat a variety of foods. Because of the mixed reviews, the slogan was not used in the final publications.

“I don’t understand the 1-2-3 variety stuck in the middle of the poster. It does not explain what 1-2-3 variety means anywhere on the poster.” (Caregiver)

“1-2-3 variety is like ready, set, go. Like 1-2-3, let’s have variety, an attention getter.” (Caregiver)

The information collected from the children was limited, but they were interested in the poster illustrations, named all the foods, and talked about the foods they liked and disliked. Their discussions revealed that they do have some understanding of the benefits of healthful eating:

“Eating healthy makes you get healthy, makes you get strong.” (Chicago child)

“When I drink milk, I get strong muscles.” (Chicago child)

Parent Booklet. The parents liked the booklet because of the tips and facts, including the information on meal planning. And they liked the way information was presented in short,

highlighted points. Some thought information was new; others saw it more as helpful and useful reminders to what they already knew.

“It helps you develop. It gives you planning tools, and it gives you good, solid information.” (Parent)

“It’s got everything in here. It’s colorful, and I really think parents would pick it up and read it.” (Parent)

“The simpler, the better, and this is simple. If you get more detailed, it gets to be too overwhelming and then they don’t want to read it.” (Caregiver)

In general, the focus of the parents’ information booklet (eating for a healthful diet) was understood, and participants were positive about the key message: eating a variety of foods is healthful.

“Something like this reminds us of the importance of eating the right foods. I’m guilty of just putting something on the table, and it doesn’t always match each food group. The picture is a good reminder.” (Parent)

Participants liked the reminder about smaller servings for 2- to 3-year-olds, and they especially liked the food list for serving sizes. The “Points for Parents” addressed the eight nutrition guidance messages. Parents liked the idea of offering whole fruit to their children, and many parents said their children drink too much juice. They acknowledged the importance of being a role model for promoting healthful eating habits for young children.

“There are a lot of good ideas for parents of ways to get their kids to participate more in what they are going to eat.” (Parent)

At the suggestion of many parents, CNPP consolidated the five “Points for Parents” sections appearing throughout the booklet into one page entitled “Healthy Eating Tips . . . Encouraging food choices for a healthy diet” and placed it in the first half of the refined booklet. Almost everyone liked the artwork, especially the food illustrations on the graphic. Several respondents suggested that illustrations of young children be included in the booklet and added to the poster to communicate the fact that the materials were aimed at young children and that physical activity is important.

Caregiver Brochure. Most caregivers thought the information in the caregiver brochure was useful. They especially liked the list of foods, “Variety from the food groups,” which contained 300 foods divided among the food groups of the Food Guide Pyramid.

“The food list shows the breakdown of the grain group, where it says whole grain and then enriched and then the ones with more fat and sugar . . . I think it’s good.” (Caregiver)

It’s good how you did the vegetable group. You put the dark green and yellow in their own groups and the starchy foods together in a group.” (Caregiver)

The experiential food activity “What’s in my taco?” was also well received, and the caregivers liked the idea of having the recipe and instructions to send home with the children.

“I think the activity is nice. It seems to be something you could do in the classroom that’s easy and interesting.” (Caregiver)

“There’s a recipe on the back. I like that. I would let the kids take that home, and they could eat this at home as well.” (Caregiver)

The caregivers also evaluated the booklet designed for the parents. Most of them liked the information so much that they suggested that the food list and food activity from the caregiver brochure be added to the parents’ booklet to create one information booklet for everyone. Overall findings indicated that one booklet for everyone, used along with the poster graphic, would be the most effective way to communicate the key messages based on the food guide. All parents and caregivers thought that an adult would have “to walk the child through” the Food Guide Pyramid to help the child understand the messages.

Participants generally thought the reading level and amount of information were good in both the booklet and brochure. The readability level was determined using the Flesch-Kincaid formula that calculates the grade level at which a reader would understand the material. A grade-level score of 6-10 is considered most effective for a general audience. The readability level of the prototypes is Grade 7.8.

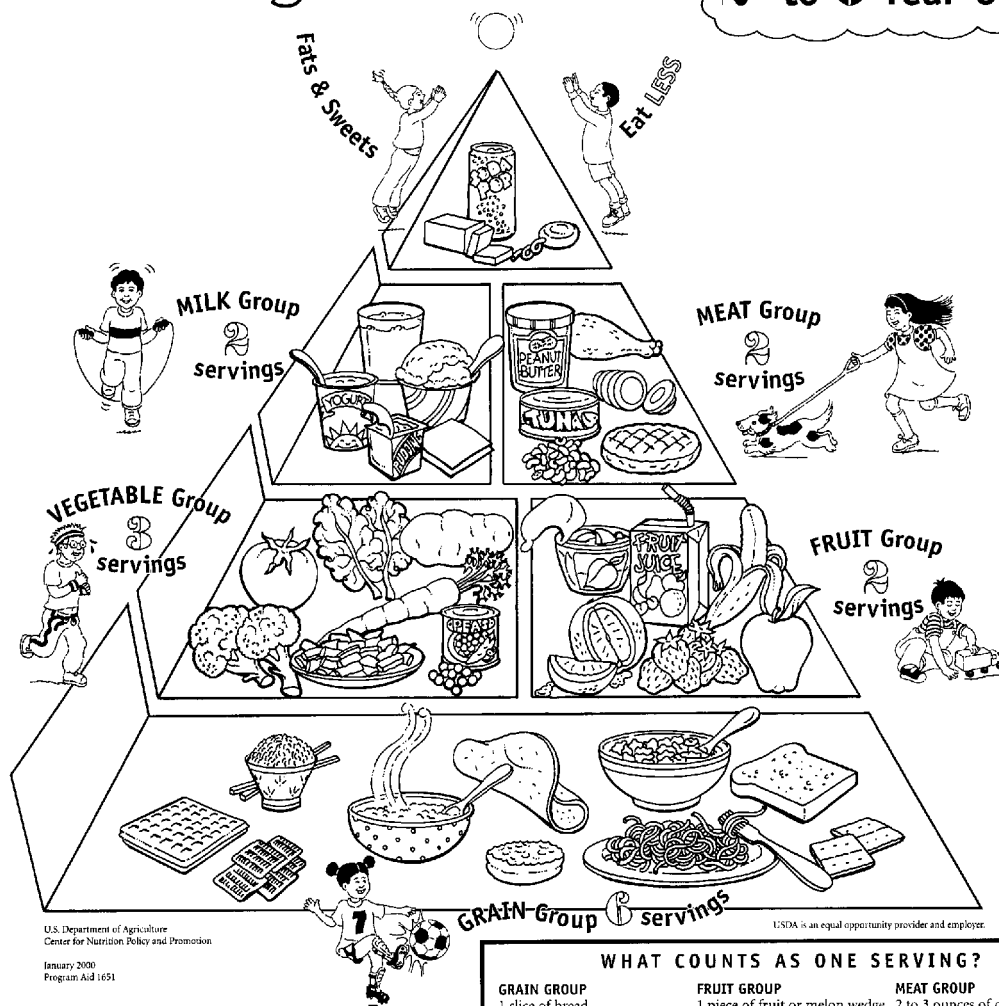
Summary

Learning the wants and needs of parents and caregivers for nutrition education of 2- to 6-year-olds can help with the development of materials that communicate nutrition guidance messages in appropriate and useful ways. Knowledge of what consumers believe, value, need, and do is as important as our knowledge of basic human nutrition (8). Many parents want and need direction—they want to know what to do to get their children to eat healthfully. Consumers want

FOOD Guide PYRAMID

for Young Children

A Daily Guide for
2- to 6-Year-Olds



FOOD IS FUN and learning about food is fun, too. Eating foods from the Food Guide Pyramid and being physically active will help you grow healthy and strong.

WHAT COUNTS AS ONE SERVING?

GRAIN GROUP

1 slice of bread
1/2 cup of cooked rice or pasta
1/2 cup of cooked cereal
1 ounce of ready-to-eat cereal

VEGETABLE GROUP

1/2 cup of chopped raw or cooked vegetables
1 cup of raw leafy vegetables

FRUIT GROUP

1 piece of fruit or melon wedge
3/4 cup of juice
1/2 cup of canned fruit
1/4 cup of dried fruit

MILK GROUP

1 cup of milk or yogurt
2 ounces of cheese

MEAT GROUP

2 to 3 ounces of cooked lean meat, poultry, or fish.
1/2 cup of cooked dry beans, or 1 egg counts as 1 ounce of lean meat. 2 tablespoons of peanut butter count as 1 ounce of meat.

FATS AND SWEETS

Limit calories from these.

Four- to 6-year-olds can eat these serving sizes. Offer 2- to 3-year-olds less, except for milk. Two- to 6-year-old children need a total of 2 servings from the milk group each day.

EAT a variety of FOODS AND ENJOY!

specifics about feeding their children—clear, easy, meaningful information on what they should do. Hence the Food Guide Pyramid for Young Children was created to help adults teach healthful eating behaviors to young children.

As a result of this research, USDA decided to refine and produce Food Guide Pyramid nutrition education materials for use with 2- to 6-year-olds. Released March 25, 1999, by Secretary Dan Glickman and Under Secretary Shirley R. Watkins, the materials are the 16-page, full-color booklet “Tips for Using the Food Guide Pyramid for Young Children 2 to 6 Years Old” and a full-color, 24" x 36" poster. Also available are a full-color Food Guide Pyramid graphic food record—“Plan for Your Young Child . . . The Pyramid Way”—and a black and white reproducible graphic of the Food Guide Pyramid (see figure). These materials may be accessed through the CNPP Web site at www.usda.gov/cnpp (PDF format) or purchased through the Government Printing Office (Stock Number 001-000-04665-9).

USDA plans to cooperate with the public and private sectors to promote the Food Guide Pyramid for Young Children. The graphic is expected to be in use for many years in USDA food guidance materials and programs targeted to young children.

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